

# Designing a coherent framework for the regulation of Internet content

---

Mira Burri (University of Bern)

## THE REGULATION OF CONTENT: INTRODUCTORY REMARKS

The regulation of content is no longer a self-contained domain of governance, which was in most aspects reserved for the nation state. Now many other domains have become relevant, in more or less immediate ways. The linkages have only grown stronger as media consumption has moved from old to new media and the latter have become deeply integrated in everyday economic, cultural, political and social life. Next to the difficulty for regulators to grapple with new technologies, the governance challenge here stems from the often strikingly different regulatory histories, rationales for intervention and institutional structures of these previously separated policy domains, and renders regulatory design appropriate for the achievement of core public policy objectives extremely complex (Brown and Marsden 2013). A related phenomenon that can be observed is the growing ‘messiness’ of regulation, as it not only draws together horizontally different domains but is also unevenly vertically spread along a multi-layered structure that mobilizes various actors at the local, national, regional and international levels.

The paper seeks to address the question of appropriate forms of regulating Internet content against this backdrop. To reduce the analytical complexity, it takes for granted the key public interest rationales for content regulation, which have traditionally been motivated by a number of concerns related to both the specific nature of the media and media markets, and to the specific function they are entrusted to play in society.

Next to their fundamental role as sustaining the freedom of expression, as conceived passively and actively, these include:

- Concerns about the impact of media content, particularly on children and other ‘vulnerable’ individuals;
- Concerns about the capacity to use media for citizen formation and the development of a national cultural identity;
- Concerns about public participation associated with the broadcasting spectrum being a common resource with competing public and private uses;
- ‘Public good’ aspects of the media, including non-rival and non-excludable elements of access and consumption;
- Tendencies toward monopoly or oligopoly in media markets, with resulting entry barriers for new competitors and lack of content diversity; and
- Concerns about the potential relationship between economic power and political power arising from concentration of ownership of the means of public communication (Flew 2011: 63).

Reflecting these rationales of public interest intervention in the media space, states have over the years developed different toolkits for regulating content. Some of the instruments in this toolbox have been structural—directed at the structure of media organizations and markets (such as media ownership regulation); others have been behavioral—directed at the behavior of media outlets (such as restrictions on violence, sexuality and adult language, as well as positive prescriptions for certain types of content with different culture-specific paternalistic nuances, Napoli 2011).

While the paper does not question the public interest rationale for media regulation, some of its thoughts on new media developments will admittedly cast doubt on the viability of the existing means for achieving these goals, as it should not be forgotten that public media were established and entrusted with specific objectives in a particular time period. That was a time marked by analogue communications, spectrum scarcity, high entry costs and very few media outlets—all conditions that have now been changed. An essential characteristic of this ‘older’ system to be borne in mind is that it permitted centralized oversight and control through a single point of entry. This control was the prerogative of the state. It was embedded in the democratic mechanisms of the nation state and secured through a complex network of institutions, which balanced the free flow of information against the protection of other essential values and interests, such as privacy, national security and public order (Keller 2011). This too has changed, as the paper explains below.

It is equally important to stress that the international regimes related to content as formulated during the analogue/offline age were nominal. They included on the one hand soft law under the United Nations Educational Social and Cultural Organization (UNESCO) that endorsed some cultural rights and freedoms as well as the sovereign right of states to define their content policies; on the other hand, we had the ‘harder’ rules on economic globalization epitomized by the Agreements under the World Trade Organization (WTO), which while liberalizing trade in goods and services, carved out policy space for the nation state to regulate on essentially all aspects of content (Burri 2009). The important exception of a high degree of international harmonization was in the field of intellectual property (IP) protection with the WTO Agreement on Trade-related Intellectual Property Rights (TRIPS) and the suite of treaties under the framework of the World Intellectual Property Organization (WIPO) (Dutfield and Suthersanen 2008).

#### **ENTER THE WEB: FEATURES OF THE NEW MEDIA LANDSCAPE**

Although television is still the number one media outlet for the average citizen on this globe, very few would dispute that the media landscape has been utterly transformed by the Internet. While the effects are not equally distributed across nations, generations and classes (Palfrey and Gasser 2008; Burri 2012), the patterns of media use have been profoundly modified (Naughton 2006). Overall, we are faced with a decidedly different information and communication environment (Benkler 2006; Castells 2009), which for the sake of the present discussion can be identified by three key aspects:

- (i) Abundance of content and its different organization (Weinberger 2007, 2012);
- (ii) New ways of distributing, accessing and consuming content; and
- (iii) New modes of content production, where the user is not merely a consumer but an active creator (Benkler 2006; Jenkins 2006).

One may reasonably wonder whether all these, often truly transformative, changes of the media environment have inspired changes in the media policy toolkit too. Surprisingly, the answer to this question is negative: indeed, national media law and policy have only slightly and not very innovatively adjusted to the affordances of the Internet and the societal implications brought about with them (Burri 2007). Neither has there been a conclusive and evidence-based analysis of the economic, cultural, social and political repercussions of the new modes of content creation, distribution, access and consumption. In this regard, we are still unsure whether the Internet and the changes it triggers, as sketched earlier, contribute to the intrinsic media policy objectives, such as pluralism of ideas and opinions, or actually obstruct their attainment.

After the original strong beliefs in the naturally generated diversity (also known as the ‘long tail’ theory; Anderson 2006; Brynjolfsson et al. 2006) and in the democratizing power of the Internet (Goodman 2004; Benkler 2006: 59–90), current practices seem to be much more nuanced. As for the long tail, as Napoli summarizes, ‘it does indeed seem to be unclear at this point whether a media environment of unprecedented choice and sophisticated tools for identifying and accessing relevant content genuinely helps or hurts the prospects for content that has not traditionally resided in the “head”’ (Napoli 2012). As global media corporations merge, both horizontally and vertically, in the pursuit of better utilization of all available channels and platforms, diversity may in fact be lost. While the positivism for user creativity is still strong and its long-term effects on legal modeling may be far-reaching (Benkler 2006, 2011), in the narrower sense of grassroots content production and its impact on democratic discourse, sceptics have stressed the dangers of fragmentation of the public discourse (van Alstyne and Brynjolfsson 2004; Sunstein 2007). The question of diversity exposure is also vexed, as it appears that citizens’ real consumption remains limited to a handful of mainstream online sources that are as a rule professionally produced by white, educated males (Hindman 2009).

It is in this sense essential that a more careful, finer-grained assessment emerges, and research has a critical role to play in this regard. Policy adaptation needs to be evidence-driven as it may be that in some cases, digital media hint at opportunities for better, more efficient and flexible accommodation of public policy goals; in other cases, they may equally be viewed as challenges, perhaps calling for additional regulatory intervention (Netanel 2000; Napoli 2012). To be sure, this adaptation, whatever its direction and form, is likely to unfold in national regulatory domains.

Yet, the point this paper seeks to make is that content regulation under the conditions of ubiquitous Internet can no longer be confined to national media law and policy, and one needs to contemplate global design. On the one hand, because due to digitization and the convergence of the media, telecommunications and the Information Technology (IT) sectors, one ought to consider all layers of the communications model.<sup>1</sup> In this sense, the content layer cannot be viewed in isolation, as very often regulatory decisions taken at the physical or logical layers matter for content. On the other hand, it should be underscored that digital technologies have had profound impact on governance forms, which depart from the conventional notion of law and shift towards more complex, heterogeneous and uncoordinated mechanisms, with a greater number of state and non-state actors involved. One area that seems particularly important is the increasingly critical role of technology as a means of control, existing on top of law or beyond law’s scope. It is important to raise awareness of these new tools of content control and understand how they operate, so as to be able to recognize the barriers to the free flow of information and find ways to cope with them.

## TECHNOLOGIES OF CONTROL

### Internet filtering

Internet filtering is the most commonly discussed technologically enabled form of control. Although it has existed for quite some time now, it has evolved significantly in terms of its scope and the extent of intervention, targets and methods. It is the reality now that, despite

---

<sup>1</sup> The layered communications model is well established in the communications policy literature (e.g. Benkler 2000; Werbach 2002; Goodman and Chen 2010), although different interpretations exist. The paper uses the three-layered model, which consists of physical (the network plus the hardware attached); the logical (software, applications, protocols) and the content layers.

all the talk about the Internet's ability to 'route around' censorship, many governments (and not only undemocratic ones) have proven adept at extending state control into cyberspace for a variety of reasons, such as public morality, cultural integrity and political control (Deibert et al. 2008, 2010, 2011).

The manner of exercising control varies in practice. As Palfrey (2007:70) explains, '[s]ometimes the law bans citizens from performing a particular activity online, such as accessing or publishing certain material. Sometimes the state takes control into its own hands by erecting technological or other barriers within the state's confines to stop the flow of bits from one recipient to another. Increasingly, though, the state is turning to private parties to carry out the online control. Often, those private parties are corporations chartered locally or individual citizens who live in that jurisdiction'. As Palfrey further explicates, it is now commonly the case that the state 'requires private parties—often intermediaries whose services connect one online actor to another—to participate in online censorship and surveillance as a cost of doing business in that state' (Palfrey 2007: 70).

The evolutionary trajectory of Internet filtering is evident, moving towards more and more sophisticated control mechanisms: from 'open net' (from the Internet's birth to 2000) through 'access denied' (2000–2005), where crude filters and blocks were installed, towards 'access controlled' (2005–2010), where mechanisms are multiple and varied, entering at different points of control to limit access to knowledge and information (Palfrey 2010; Deibert et al. 2011a: 6–15). Before long, we have entered a fourth phase of 'access contested', which is characterized by more, more diversified and deeper controls but also by 'pushback against some of these controls from civil society, supported in many instances by the resources of major governments, like the United States and the European Union' (Deibert et al. 2011a: 14).

The repercussions of these 'technologies of disconnection' (Dutton et al. 2011: 34) are enormous for freedom of expression worldwide and put the democratizing potential of the Internet—the 'technologies of freedom' (de Sola Pool 1983) in doubt. The 'Great Firewall of China' is the infamous example but we have also observed the developments of the Arab spring, which more dynamically show the battles over the Internet as a critical space for political action (Roberts et al. 2011; 2011a). The Snowden revelations have been the latest instance exposing the breadth and depth of intervention and the use made by states with advanced democracies.

In contrast to conventional mechanisms of regulating media, Internet filtering as a powerful method of exercising control is neither transparent, nor subject to mechanisms securing legitimacy and accountability (McIntyre and Scott 2008). It is different even from standard surveillance methods, as applied by police enforcement, as Internet filtering is out of judiciary control that may safeguard the rights of the citizens from violations of privacy, freedom of speech or association. The trend of 'outsourcing' the enforcement to private entities, often as a precondition for doing business, is particularly worrisome.

### **Digital rights management systems**

Another mechanism to ensure perfect enforcement through technology is found in the so-called digital rights management systems (DRM). While Internet filtering is a practice that can be done in many diverse ways (partial or full sites shutdown, distributed denial of service, content filtering, cyber-attacks, etc.; Deibert et al. 2011a, Roberts et al. 2011, 2011a), DRM is a means that can be employed for different practices. DRM have mostly been discussed in the field of copyright enforcement, but they may in fact be utilized for many other purposes as generic, embedded forms for controlling access and use of digital content and devices.

Although DRM are plainly technical applications, they are problematic in the field of media policy as they may unduly restrict access to and use of digital content. This has to do firstly with the way copyright functions and secondly with the way DRM can automatically enforce it. Copyright and other types of IP protection are intended to foster innovation by granting authors a temporary monopoly over their creations. Copyright has built-in mechanisms, such as fair use, to ensure some balance between the individual rights of the authors and the public interest (Helfer and Austin 2011). This balance becomes very fragile in the digital media environment, as companies seek perfect control over 'their property' through DRM, under the guise of protecting digital content from unlawful distribution and use. In practice, such efforts have eroded some fundamental rights of consumers and restricted usages traditionally allowed under analogue/offline copyright (Lucchi 2007). In addition, DRM may in many situations deter the full realization of digital content production and distribution, by rendering it illegal or simply by banning it, possibly severely chilling creativity (Cohen 2007; Vaidhyathan 2007).

In terms of regulation and its evolution, it needs to be stressed that the content industries have been very successful in their efforts to expand the scope and extend the duration of copyright. Through race-to-the-top strategies, this augmented protection has been emancipated to the international level in the framework of the TRIPS Agreement, as mentioned earlier, and in the even further-reaching free trade agreements (FTAs) (Netanel 2007; Patry 2009).

Despite grassroots activism, IP issues have remained only marginal in key efforts aimed at securing public goods at the international level (Helfer and Austin 2011). For instance, they do not appear in any meaningful way in the 2005 UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expressions (Burri 2009, 2010), nor do they figure in the World Summit on the Information Society (WSIS) agenda (Erment 2005) or in the recent NetMundial documents.<sup>2</sup> At the same time, the circumvention of technical protection measures, such as DRM, has been prohibited in most jurisdictions, as well as internationally, through the WIPO Internet Treaties.<sup>3</sup>

The proposed SOPA/PIPA legislation,<sup>4</sup> which in essence aimed to expand the ability of U.S. law enforcement to fight online trafficking, also beyond the U.S. national jurisdiction, was one of the recent instances of sought expansion of state control. The anticipated dangers of silencing of speech, chilling innovation on the Internet and for the Internet itself need to be clearly acknowledged (Lemley, Levine and Post 2012).

DRM have repercussions beyond copyright and its problematic interface with citizens' rights. The DRM mechanisms are not transparent and in fact may allow for any type of

---

<sup>2</sup> <http://netmundial.br/netmundial-multistakeholder-statement/>

<sup>3</sup> In the U.S., anti-circumvention is banned by the Digital Millennium Copyright Act, Pub. L. No. 105-304, 112 Stat. 2860 (1998) (codified as amended in scattered sections of 17 U.S.C.); in the EU, the relevant act is Directive 2001/29/EC of the European Parliament and of the Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society, OJ L 167/10, 22 June 2001. On DRM, see, e.g., Yu (2006); Wheatley (2008). The WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonograms Treaty (WPPT) were concluded in 1996 and entered into force in 2002.

<sup>4</sup> Stop Online Piracy Act (SOPA), H.R. 3261 and Protect IP Act (Preventing Real Online Threats to Economic Creativity and Theft of Intellectual Property Act, or PIPA), S. 968. An essential difference between the two is that PIPA targets domain name system providers, financial companies and advertising networks, but not companies that provide Internet connectivity. After strong opposition by academics, corporations and civil society representatives (see e.g. <https://www.eff.org/issues/coica-internet-censorship-and-copyright-bill>), both bills were dropped.

interference, impacting on the privacy of the person reading an e-book, or watching a film on iTunes; they may deprive the individual from making choices between products or services (Lessig 1999) or influence future commercial offers, turning (symbolically put) the user into a product. Ultimately, DRM-like systems can enforce any rule that content or device producers want (Zittrain 2008a), such as for instance making access conditional on a payment. Such developments are aligned with the broader trend of the privatization of content (Draho and Braithwaite 2002) rather than its democratization. Privileged access to scientific data and knowledge, entertainment, news and archives creates a deep divide, with various implications, between those who can afford to pay and those who cannot.

In the discussions of net neutrality (Marsden 2010) and search engines (Vaidhyanathan 2007), one can also see elements of the creation of two-tier environments, where in exchange for additional payment, one gets either faster access to data and traffic, or becomes more visible on the web. These different modalities are enabled by the different type of architecture in cyberspace.

### Technology as regulation

The above cases fit into Lawrence Lessig's broader narrative of 'code is law'. Lessig argued that in cyberspace, code is overtaking the functions of law (Lessig 1999, 2006). In contrast to real-space, where architecture is more or less given, in cyberspace, it is 'plastic' and open to change (Lessig 2006: 20). Designing cyberspace through code thus becomes a very powerful regulatory activity (Lessig 2006: 32). This code, which Lessig calls 'West Coast Code' (because of the proximity to Silicon Valley), is starkly different from the 'East Coast Code' (so-named because of the proximity to Washington, DC [Lessig 2006: 72]). The latter encompasses laws as a product of the conventional legislative processes, which in a democratic state involve highly formalized and complex mechanisms and are subject to a system of checks and balances. Traditional media law-making, both in terms of the rules and the institutions that are created, is precisely the product of such a deliberative process; these rules are also transparent, may be discussed, criticized, opposed to and as a result perhaps modified. The U.S. First Amendment case law, for instance, is a strong proof of the practice of testing new media and the ways to regulate them against the high principle of freedom of speech (see, e.g., Bellia et al. 2007).<sup>5</sup>

'West Coast Code,' by contrast, is simply built into the hardware or the software; it is cheaper and faster to create but also opaque for citizens. In comparison to conventional law, it is also self-enforceable, without executive or judicial oversight (Zittrain 2008a). While West Coast Code may be an appropriate (and more economical) mechanism to address the pertinent specific and highly technical questions as it 'industrializes' content surveillance, classification, and management (Mueller 2010: 188). But it lacks the legitimacy and accountability of conventional law-making (Koops 2008). In addition, while such code can cater for some narrow policy goals, such as protecting against unlawful use of copyrighted works, it cannot address broader and much more complex objectives that involve a balance between different private and public interests.

The experience gained over the last 15 years, when the first edition of *Code and Other Laws of Cyberspace* was published, has confirmed Lessig's theory and the move from law towards

---

<sup>5</sup> See, e.g., *Home Box Office, Inc. v. FCC*, 567 F.2d 9, 68 (D.C. Cir. 1977), where the Court found that 'important differences between cable and broadcast television and "differences in the characteristics of new media justify differences in the First Amendment standards applied to them"' (citing *Red Lion Broadcasting Co. v. FCC*, 395 U.S. 367, 386, 389 (1969), which upheld the fairness doctrine on grounds that it implemented the First Amendment). See also Price (2001).

code in creating mechanisms of control in cyberspace. The situation has in many aspects only worsened (Lessig 2006; Zittrain 2008). Indeed, we have seen the deterioration of some principles that initially allowed innovation over the network and have been enshrined in law. A key such principle existing in most telecommunications laws immunized the carriers, whether broadband companies or Internet Service Providers (ISPs), for objectionable material that flows through their channels.<sup>6</sup> This rule permitted media access by ordinary individuals, and as Balkin argues, ‘... in terms of its practical effects, it may be even more important than many aspects of First Amendment doctrine’ (Balkin 2008: 111). The DMCA further limited the liability of ISPs for copyright infringements, asking them to react only *ex post* to takedown notices.<sup>7</sup> Although the safe harbor rule as privately administered enforcement may have had some chilling effects on Internet speech (Seltzer 2010), it may have had positive impact too, as it shielded intermediaries. Balkin believes that, ‘[w]ithout these safe harbor provisions, many features of current Internet practice—including the development of Web 2.0 applications that leverage the content contributions of many people—would be legally risky. Indeed, were it not for statutory safe harbors and other limits on copyright liability, the basic practices of search engines, and indeed much of the traffic on the Internet, might be illegal’ (Balkin 2008: 111).

Over time, however, some of these important foundational principles have deteriorated in practice. For example, most industrialized countries have severely limited safe harbors and reconsidered intermediaries’ responsibilities in copyright enforcement demanding their active *ex ante* involvement in order to escape liability (de Beer and Clemmer 2009).<sup>8</sup> One can observe a shift from ‘passive-reactive to active-preventive schemes for communication intermediaries’ (de Beer and Clemmer 2009: 24) and to a new type of content filtering enabled through the ‘deep packet inspection’ technology, which may further erode important users’ rights (Katyal 2010; Bendorath and Mueller 2012). Overall, the critical net neutrality principle, which has been intrinsic to the architecture and the functioning of the Internet and basically holds that the network should be neutral to the content being passed and that the intelligence is located at the edges of the network (Wu 2003) has been punctuated. While there is increasingly acknowledgement of the centrality of net neutrality as an architectural foundation and its impact on innovation and the free flow of content, the international community could not reach consensus on the principle and enshrine it in the NetMundial Multistakeholder Documents.<sup>9</sup>

## CONCLUDING REMARKS

In presenting the above trends, the paper’s prime aim was to illustrate that in the new media space there are multiple and increasing points of control outside formal legal institutions and outside the conventional scope of media policy. The complex and highly fragmented nature of governance, which often mobilizes intermediaries (Verhulst 2006; Mueller 2010: 205), threatens free speech and makes in general the pursuit of public objectives difficult.

---

<sup>6</sup> Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (codified as amended in scattered sections of 47 U.S.C.).

<sup>7</sup> ISPs taking care of traffic only were not responsible for copyright violations over their communication channels, as long as the ISPs terminated repeat infringers (17 USC § 512(a) (2000)). Intermediaries that hosted content had more responsibility, and were safe only if they acted swiftly to take down infringing material once they were notified of the infringement.

<sup>8</sup> The countries examined in this study were Australia, Canada, China, the EU, France, Germany, Japan, New Zealand, Singapore, South Korea, the United Kingdom and the United States.

<sup>9</sup> <http://netmundial.br/netmundial-multistakeholder-statement/>

We stressed in particular the increasing role of technologically-enabled control. We showed that it can effectively (and efficiently) influence the production and the flow of information, access to information, its consumption and reuse. Technology strongly influences both the interactions within the media environment that are to be regulated (that is, the subject of regulation), and on its *regulability* (that is, the possibilities and conditions of regulation). Technological design can in itself ‘be more or less free speech friendly, and more or less participatory’ (Balkin 2008: 110) – the current trends show rather the constraining rather than the enabling opportunities.

The perils of technologically-based regulation are all the greater if we bear in mind that there is still so much uncertainty as to the effects of the digital media environment on the intrinsic goals of media policy and how it affects the ‘ecology of freedom of expression’ (Dutton et al. 2011: 5). This uncertainty is not fully acknowledged, and regulators do not hesitate to intervene, mostly in the IP field, often ignoring the multidirectional effects of their action, and having lost the caution and the lightness of touch of the early Internet days. The overall danger of unintended consequences is augmented by increased policy interdependence and the prevalent messy governance structures. In fact, digital media only accentuate globalness and interdependence, as local decisions have global impact and vice versa.

#### RECOMMENDATIONS FOR APT DESIGN FOR THE REGULATION OF INTERNET CONTENT

Against the backdrop of the above analysis, we would like to put forward a few recommendations that address issues critical for the evolving design of Internet content regulation.

While the freedom of expression, both as a passive and an active right, is protected under public international law,<sup>10</sup> there are no commonly agreed international standards as to its implementation and state practice varies. At the same time, the Internet, as the paper showed above, both accentuates the importance of local decisions, as well as enables the state to mobilize newer forms of controlling content, in particular through intermediaries and technological design.

In this sense, while we do not envision a globally harmonized system of content regulation, we deem it crucial that at least two governance elements are addressed as a matter of global action – (i) **constraining the practice of content filtering** and (ii) **commitment to the net neutrality principle**.

With regard to the former, while it is important how well and as fairly as possible Internet filtering is done (Bambauer 2009), as Mueller points out our underlying wish should be not to optimize filtering but rather to resist it (Mueller 2010: 207). Whereas and as clarified at the paper’s outset, there are valid concerns that may justify state intervention, the nation state should exercise restraint in content policing and when necessary, base it on clear, transparent criteria and due process. The dangers of outsourcing content regulation to private actors and/or embedding it in code should be clearly acknowledged and the practice equally restrained (Mueller 2010: 211). States should strive to rely on notice and takedown as an *ex post* method of addressing illegal content and do this exclusively within the parameters of their own jurisdiction, abstaining from extra-territorial action, which may interfere with the operation of the network (Mueller 2010: 207).

---

<sup>10</sup> Art. 19 of the Universal Declaration of Human Rights; art. 19 of the International Covenant on Civil and Political Rights, as well as art. 10 of the European Convention for the Protection of Human Rights and Fundamental Freedoms.



Furthermore, '[t]he governance of the Internet needs to explicitly recognize and embrace the principle that there are limits to national sovereignty over the flow of information. This claim is based on the truth that there are many transnational communities or policies, created by global electronic communications, whose individual members have their own intrinsic rights to communicate among themselves' (Mueller 2010: 209).

With regard to net neutrality, states, the international community and civil society should strive to enshrine this principle, as broadly conceived (Marsden 2010), as a global norm, at least in a soft law form. A network that is neutral has so far permitted incredible amount of creativity and innovation and does in effect eliminate gatekeepers and diverse barriers to access: 'A neutral network maximizes access to the public and minimizes the ability of an intermediary to substitute its own judgments for those of end users' (Mueller 2010: 210).

States should not only rhetorically commit to net neutrality but implement it in effect. This may affect a number of policies and overall regulatory design, as we showed above. This implementation is likely to have serious implications to filtering practices and the relationship between the involved private actors and state agencies. It should also affect policies in the field of copyright enforcement and solutions in multilateral and regional trade venues, which at first sight appear less directly linked to content regulation (Burri 2013).

Overall, states should strive to adhere to the deferential principle of respecting the functional integrity of the Internet, and combine this with appropriate institutional and organizational implements, which can ultimately 'help ensure that any potential regulation of Internet-based activities enables, rather than hinders, tangible and intangible benefits for end users' (Whitt 2013: 689). To be sure, the design of this distributed governance architecture in a 'shared environment' (Cerf et al. 2014) is hard to pinpoint and there is a need for more research that maps existing models in different regimes seeking apt solutions, as well as maps power relations in different institutional settings, which are ultimately important for the feasibility of any proposed design.

Finally, while states grapple to formulate their coherent roles in the broad Internet governance landscape, they should subscribe to the 'do no harm' principle. In this sense, policy-makers should not adopt regulations that violate the Internet's modular, end-to-end, interconnected and agnostic nature and give way to the comparative wisdom and efficacy of polycentric processes and outcomes (Whitt 2013: 766-7).

## BIBLIOGRAPHY

- Anderson, C. (2006) *The Long Tail: Why the future of business is selling less of more*, New York: Hyperion.
- Balkin, J. (2008) 'Media access: A question of design,' *George Washington Law Review*, 76(4): 101–18.
- Bambauer, D.E. (2009) 'Cybersieves,' *Duke Law Journal*, 59(3): 377–446.
- Bellia, P.L., Schiff Berman, P. and Post, D.G. (2007) *Cyberlaw: Problems of policy and jurisprudence in the information age*, 3rd edn, St. Paul, MN: Thomson West.
- Bendrath, R. and Mueller, M. (2011) 'The end of the net as we know it? Deep packet inspection and Internet governance,' *New Media and Society*, 13(7): 1142–60.
- Benkler, Y. (2000) 'From consumers to users: Shifting the deeper structures of regulation toward sustainable commons and user access,' *Federal Communications Law Journal*, 52: 561–79.
- Benkler, Y. (2006) *The Wealth of Networks: How social production transforms markets and freedom*, New Haven: Yale University Press.

— (2011) *The Penguin and the Leviathan: How cooperation triumphs over self-interest*, New York: Crown Business.

Brown, I. and Marsden, C. (2013) *Regulating Code: Good governance and better regulation in the information age*, Cambridge, MA: MIT Press.

Burri, M. (2007) 'The new Audiovisual Media Services Directive: Television without frontiers, television without cultural diversity,' *Common Market Law Review*, 44: 1689–1725.

— (2009) 'Trade versus culture in the digital environment: An old conflict in need of a new definition,' *Journal of International Economic Law*, 12: 17–62.

— (2010) 'Cultural diversity as a concept of global law: Origins, evolution and prospects,' *Diversity*, 2: 1059–84.

— (2011) 'Cultural protectionism 2.0: Updating cultural policy tools for the digital age,' in A. Candeub and S. Pager (eds) *Transnational Culture in the Internet Age*, Cheltenham, UK: Edward Elgar, 182–212.

— (2012) 'The global digital divide as impeded access to content,' in M. Burri and T. Cottier (eds) *Trade Governance in the Digital Age*, Cambridge: Cambridge University Press, 396–420.

— (2013) 'Should there be new multilateral rules for digital trade?,' *Think piece for the E15 Expert Group on Trade and Innovation*.

Castells, M. (2009) *Communication Power*, Oxford: Oxford University Press.

Cerf, V., Ryan, P. and Senges, M. (2014) 'Internet Governance is our shared responsibility,' *I/S: A Journal of Law and Policy for the Information Society* 10 (forthcoming).

Cohen, J. (2007) 'Creativity and culture in copyright theory,' *UC Davis Law Review*, 40: 1151–1205.

de Beer, J. and Clemmer, C.D. (2009) 'Global trends in online copyright enforcement: A non-neutral role for network intermediaries?,' *The Journal of Law, Science and Technology*, 49: 375–409.

Deibert, R. and Rohozinski, R. (2011) 'Contesting cyberspace and the coming crisis of authority,' in R. Deibert, J. Palfrey, R. Rohozinski and J. Zittrain (eds) *Access Contested: Security, identity, and resistance in Asian cyberspace*, Cambridge, MA: MIT Press, 21–41.

Deibert, R., Palfrey, J., Rohozinski, R. and Zittrain, J. (eds) (2008) *Access Denied: The practice and policy of global Internet filtering*, Cambridge, MA: MIT Press.

— (2010) *Access Controlled: The shaping of power, rights, and rule in cyberspace*, Cambridge, MA: MIT Press.

— (2011) *Access Contested: Security, identity, and resistance in Asian cyberspace*, Cambridge, MA: MIT Press.

— (2011a) 'Access contested: Toward the fourth phase of cyberspace controls,' in R. Deibert, J. Palfrey, R. Rohozinski and J. Zittrain (eds) *Access Contested: Security, identity, and resistance in Asian cyberspace*, Cambridge, MA: MIT Press, 3–20.

De Sola Pool, I. (1983) *Technologies of Freedom: Of free speech in an electronic age*, Cambridge, MA: Harvard University Press.

Drahos, P. and Braithwaite, J. (2002) *Information Feudalism: Who owns the knowledge economy*, London: Earthscan.

Dutfield, G. and Suthersanen, U. (2008) *Global Intellectual Property Law*, Cheltenham, UK: Edward Elgar.

Dutton, W.H., Dopatka, A., Hills, M., Law, G. and Nash, V. (2011) *Freedom of Connection, Freedom of Expression: The changing legal and regulatory ecology shaping the Internet*, Paris: UNESCO Publishing.

Ermert, M. 'Intellectual property issues kept off WSIS agenda,' *Intellectual Property Watch*, 30 November 2005.

Flew, T. (2011) 'New media policies,' in M. Deuze (ed.) *Managing Media Work*, London: Sage, 59–72.

- Goodman, E.P. (2004) 'Media policy out of the box: Content abundance, attention scarcity, and the failures of digital markets,' *Berkeley Technology Law Journal*, 19: 1389–472.
- Goodman, E.P. and Chen, A.H. (2010) 'Modelling Policy for New Public Service Media', *Harvard Journal of Law and Technology* 24: 111–70.
- Helfer, L.R. and Austin, G.W. (2011) *Human Rights and Intellectual Property: Mapping the global interface*, Cambridge: Cambridge University Press.
- Hindman, M. (2009) *The Myth of Digital Democracy*, Princeton, NJ: Princeton University Press.
- Jenkins, H. (2006) *Convergence Culture: How old and new media collide*, New York: New York University Press.
- Katyal, S.K. (2009) 'Filtering, piracy, surveillance and disobedience,' *The Columbia Journal of Law and the Arts*, 32(4): 401–26.
- Keller, P. (2011) *European and International Media Law: Liberal democracy, trade, and the new media*, Oxford: Oxford University Press.
- Koops, B.-J. (2008) 'Criteria for normative technology: The acceptability of "code as law" in light of democratic and constitutional values,' in R. Brownsword and K. Yeung (eds) *Regulating Technologies: Legal futures, regulatory frames and technological fixes*, Oxford: Hart, 157–74.
- Lessig, L. (1999) *Code and Other Laws of Cyberspace*, New York: Basic Books.
- (2006) *Code: Version 2.0*, New York: Basic Books.
- Lemley, M., Levine, D.S. and Post, D.G. (2012) 'Don't break the Internet,' *Stanford Law Review* 64: 34–8.
- Lucchi, N. (2007) 'Countering the unfair play of DRM technologies,' *Texas Intellectual Property Law Journal*, 16:1: 91–124.
- Marsden, C.T. (2010) *Net Neutrality*, London: Bloomsbury Academics.
- McIntyre, T.J. and Scott, C. (2008) 'Internet filtering: Rhetoric, legitimacy, accountability and responsibility,' in R. Brownsword and K. Yeung (eds) *Regulating Technologies: Legal futures, regulatory frames and technological fixes*, Oxford: Hart, 109–24.
- Mueller, M.L. (2010) *Networks and States: The global politics of Internet Governance*, Cambridge, MA: MIT Press.
- Naughton, J. (2006) 'Our changing media ecosystem,' in E. Richards, R. Foster and T. Kiedrowski (eds) *Communications: The next decade*, London: Ofcom, 41–50.
- Napoli, P.M. (2011) 'Global deregulation and media corporations,' in M. Deuze (ed.) *Managing Media Work*, London: Sage, 73–85.
- (2012) 'Persistent and emergent diversity policy concerns in an evolving media environment: Toward a reflective research agenda,' in A. Candeub and S. Pager (eds) *Transnational Culture in the Internet Age*, Cheltenham, UK: Edward Elgar.
- Netanel, N.W. (2000) 'Cyberspace self-governance: A skeptical view from liberal democratic theory', *California Law Review* 88: 397–498.
- (2007) 'Why has copyright expanded? Analysis and critique,' in F. Macmillan (ed.) *New Directions in Copyright Law*, vol. 6, Cheltenham: Edward Elgar.
- Palfrey, J. (2007) 'Reluctant gatekeepers: Corporate ethics on a filtered Internet,' in World Economic Forum, *Global Information Technology Report*, Geneva: World Economic Forum, 69–78.
- (2010) 'Four phases of Internet regulation,' *Berkman Center for Internet and Society Research Publication*, 9, 1–22.
- Palfrey, J. and Gasser, U. (2008) *Born Digital: Understanding the first generation of digital natives*, New York: Basic Books.

- Patry, W. (2009) *Moral Panics and the Copyright Wars*, Oxford: Oxford University Press.
- Price, M.E. (2001) 'The newness of new technology,' *Cardozo Law Review*, 22: 1885–913.
- Roberts, H., Zuckerman, E., Faris, R., York, J. and Palfrey, J. (2011) 'The evolving landscape of Internet control,' Berkman Center for Internet and Society.
- (2011a) 'International bloggers and Internet control,' Berkman Center for Internet and Society.
- Seltzer, W. (2010) 'Free speech unmoored in copyright's safe harbor: Chilling effects of the DMCA on the First Amendment,' *Harvard Journal of Law and Technology*, 24(1): 171–232.
- Sunstein, C.R. (2007) *Republic.com 2.0*, Princeton, NJ: Princeton University Press.
- Vaidhyanathan, S. (2007) 'The googlization of everything and the future of copyright,' *UC Davis Law Review*, 40: 1207–31.
- van Alstyne, M. and Brynjolfsson, E. (2004) 'Global village or cyber-balkans? Modeling and measuring the integration of electronic communities,' *Management Science*, 51: 851–68.
- Verhulst, S. (2006) 'The regulation of digital content,' in L.A. Lievrouw and S. Livingstone (eds) *The Handbook of New Media*, London: Sage, 329–49.
- Weinberger, D. (2007) *Everything Is Miscellaneous: The power of the new digital disorder*, New York: Henry Holt.
- (2012) *Too Big to Know: Rethinking knowledge now that the facts aren't the facts, experts are everywhere, and the smartest person in the room is the room*, New York: Basic Books.
- Werbach, K. (2002) 'A layered model for internet policy,' *Journal of Telecommunications and High Technology Law* 1: 37–67.
- Wheatley, C.T. (2008) 'Overreaching technological measures for protection of copyright: Identifying the limits of copyright in works in digital form in the United States and the United Kingdom,' *Washington University Global Studies Law Review*, 7: 353–71.
- Whitt, R.S. (2013) 'A deference to protocol: Fashioning a three-dimensional public policy framework for the Internet age,' *Cardozo Arts and Entertainment Law Journal* 31: 689–768.
- Wu, T. (2003) 'Network Neutrality, Broadband Discrimination,' *Journal of Telecommunications and High Technology Law* 2: 141–78.
- Yu, P.K. (2006) 'Anticircumvention and anti-anticircumvention,' *Denver University Law Review*, 84(1): 13–77.
- Zittrain, J. (2008) *The Future of the Internet – and How to Stop It*, New Haven, CT: Yale University Press.
- (2008a) 'Perfect enforcement on tomorrow's Internet,' in R. Brownsword and K. Yeung (eds) *Regulating Technologies: Legal futures, regulatory frames and technological fixes*, Oxford: Hart, 125–56.